

ART. XX.—*The Gymnorhinæ or Australian Magpies, with
a description of a New Species.*

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We possess little information about these familiar and favourite birds, and much remains to be learnt respecting them, while it is a matter of surprise that even the knowledge of the geographical range of the various species is so meagre.

The Magpies in their attractive garbs of black and white are indeed emblematical of Australians. They thrive and adapt themselves to almost any part of the continent, are strikingly showy in matter of dress, musical, apt to talk, and if my Australian brethren will permit me to say so, are at times somewhat pert.

It is generally accepted that there are three species or varieties of the genus *Gymnorhina* or so called in vernacular terms—Magpies, and I hope before I finish this article to prove the existence of a fourth, which seems to have been overlooked by previous collectors. Nothing is more delightful than the study of these handsome birds in the open where I have observed the four species. I regret now, as we so often do afterwards, that I did not pay more attention to them when I enjoyed the opportunity.

G. tibicen, Latham (The Black-backed Magpie).

I think we shall find this species ranges from the Gulf of Carpentaria district down through the interior parts of Queensland, New South Wales, and Victoria to South Australia—the focus of numbers being probably in South Queensland, New South Wales, and the Lower Murray district. At early dawn the beautiful piping notes of this Magpie may be heard arising from various belts of timber, but the majority of the birds seldom leave their roost till about sunrise, when they depart singly, in pairs or small companies, to feed upon the plains or other open

ground. They revisit the timber during the day, but towards evening may again be seen on the ground before the various lots hurry in to retire for the night at sundown. At such a time their evensong seems if possible more cheerful. Perhaps five or seven birds will form themselves into the approved art pyramid upon the dead top branches of a gum tree—one bird starts to carol, others chime in, and all conclude in a most joyful chorus as of thankfulness to the departing day.

After the breeding season, and during the winter months, the Magpies congregate in some localities in considerable numbers. This I have more particularly observed in connection with the next species, the White-backed Magpie. Gould says it would appear that the young keep in the company of their parents for the first ten months—that would be till the following pairing season. The pairing season will be found to commence in July, some of the earlier birds laying in August, but the majority lay in September, and the breeding season generally may be said to extend to the end of the year. The nest, which is usually placed in the forked branches of a tree—sometimes a tall, sometimes a low bushy one—is the well known large, open structure built outwardly of dead sticks, twigs and strips of bark, and lined securely inside with a ply of fine bark, grass, hair, feathers, etc. A nest I observed lately on a fringe of Mallee was decorated with numerous long emu feathers artistically interwoven round the rim. The dimensions of the nest, exteriorly, were 33 cm. (13 inches) across by $20\frac{1}{4}$ cm. (8 inches) deep, the inside measurement being $12\frac{3}{4}$ cm. (5 inches) in diameter by 9 cm. ($3\frac{1}{2}$ inches) deep.

The eggs vary in numbers from three to five, a quartette however being most frequently the complement. There is also considerable difference in the character and colour of the markings of the various clutches, so much so, that it is hard to understand why eggs so totally distinct should be laid by birds of the same species, and that frequently in the same locality. Another "nut" for the theorists on egg-colouration to crack.

As giving an insight into the habits of the Black-backed Magpie I may relate the history of a pair I saw in Riverina lately, breeding close to the homestead at Dunvegan, near Deniliquin. An exceedingly handsome male bird was taken when

young from the bush, reared and allowed his freedom about the place. When he was about two years old, hen-birds from the bush came and coquetted with "Charlie," as he is called, who appeared to pay little heed to his admirers. At last the seductions of one of the hen-birds proved too great, and the pair commenced to build a nest in the nearest tree, not one hundred yards from the house. Charlie proved an exceedingly devoted husband, feeding his mate upon the nest regularly by conveying food from the kitchen table, the meat block, and in fact from anywhere he could steal it. This recurred for seven seasons, the seventh season's brood, I was a witness to, and saw Charlie procuring meat in the kitchen to feed the young. Once Charlie's wing was clipped, when he was forced to climb the tree instead of using flight. On another occasion he unfortunately lost a leg in a trap. It was almost ludicrous to watch how the poor bird used the stump in climbing to assist to feed his offspring. When a brood (usually four in number) was reared honours seemed to be divided, he brought two about the house, while the wild bird enticed her pair into the bush.

Magpies in their natural state mostly procure their food upon the ground, devouring almost anything that creeps or crawls, including lizards and possibly small snakes. Occasionally they eat grain, berries, and other fruit, but those persons who contend that Magpies are granivorous, need only place a bird in a cage, keep it upon grain diet, and note how soon it will die.

It is well known that Magpies can be taught successfully to imitate the human voice in speech. When they attain this accomplishment they invariably drop their own clear wild notes, giving voice occasionally to a loud half-crowing half-whistle-like sound, which is simply abominable as compared with the delightful flute-like cadenza one hears the bird pour forth when in native freedom.

At Warroo, in South Queensland, my venerable friend, Mr. Hermann Lau, once found a Black-backed Magpie's nest containing two eggs of that bird, in addition to a pair of eggs of the Great Cuckoo or Channel-bill (*Scythrops*). He also noted that on the Darling Downs the Magpie usually reared two broods a season, one in August, another about October.

G. leuconota, Gray (The White-backed Magpie).

This showy and splendid species inhabits the coastal regions and more heavily forested parts of New South Wales, Victoria, and South Australia. Whether it extends further west has not been fully determined. In Victoria, south of the Great Dividing Range, the White-backed species is very abundant. It is instructive to observe how that natural barrier divides the two species—the White-backed from the Black-backed variety. During several trips on our main railway line across Victoria, I noted White-backed Magpies very numerous as far as Mount Macedon and Kyneton. Beyond, the numbers seemed to decrease. The first Black-backed birds were seen at Malmsbury and Taradale. The last White-backs were noted beyond Castlemaine at Harcourt and Ravenswood. In the Sandhurst district the tide of Black-backs had fairly set in, and by the time the plains of the Murray were reached these birds were in great evidence.

As may be expected the natural habits and characteristics of the Black-backed Magpie appear in the White-backed species. However, as Gould experienced, the White-backed birds are more wary and shyer in disposition. To a discriminating ear the delightful clear ringing call is fuller and louder in the White-backed than in the other species. I have endeavoured to class the different notes, of which there appear three kinds at least—the carol or song, a whistle-like call, and a long “squawk”-like note of alarm. The nidification of the White-back likewise resembles that of the other. A nest taken in the Upper Werribee district measured $45\frac{3}{4}$ cm. (18 inches) across, while the inside dimensions were $20\frac{1}{4}$ cm. (8 inches) across, by $7\frac{1}{2}$ cm. (3 inches) deep. It was constructed as usual of dead twigs, and lined inside with grass principally, casuarina needles and wool. A complement of from three to five eggs is laid. There is in the Adelaide Museum a curious exhibit, a nest of this species outwardly composed of twisted and crooked pieces of sheep fencing wire. This season I saw taken from some Melaleuca scrub near the coast, a nest composed entirely of wire-like roots, and well-fitted inside with string, pieces of jute, etc. The roots were Melaleuca, and had evidently been taken from a newly grubbed piece of ground near.

I possess a note of this species also breeding in semi-captivity, but in this instance the tame bird was the female. She was two years old when she built a nest on a roof of an outbuilding near my uncle's house, Heyfield, Gippsland. A pair of young were hatched. She was a most persistent nuisance when building her nest—pulling fibre out of door mats, unravelling the edges of oilcloth, etc. One day, after a chance haircutting operation, the bird eagerly seized mouthfuls of hair to finally trim her nest. This bird lost its beautiful native carol, adopting instead the voices of various roosters and other farm-yard fowls.

Some birds, especially old ones, grow very savage, and will attack and strike persons approaching the vicinity of their nest. Once I saw a pair enforce the "move-on clause" on a wedge-tailed eagle, which the magpie attacked from above—every thrust making tufts of feathers fly from between the shoulders of the great bird of prey. I heard of a "hen-wife" who kept a couple of tame magpies about the farm because they encouraged wild ones near, which were a safeguard to her chickens and young poultry against certain birds of prey. If a hawk appeared anywhere in the neighbourhood it usually met with a warm reception from the magpies.

G. dorsalis, n. sp. (The Long-billed Magpie).

The recorded data regarding the geographical range of the *Gymnorhina* on the continent, is somewhat perplexing to ornithological students. Gould states in his "Handbook," "It is true that a bird of this genus inhabits the neighbourhood of Swan River (W.A.), whose size and style of plumage are very similar [to *G. tibicen*], but which I have little doubt will prove to be distinct," and in his tabulated list in the West Australian column has inserted *G. tibicen* with a query against it. Yet, under the heading of *G. leuconota*, he says that bird (*G. leuconota*) is called "Goore-bat" by the aborigines of the low-land districts of *Western Australia*! In Dr. Ramsay's "Tabular List" (1883), *G. tibicen* is indicated in the West Australian division, while in his last list (1888) this author has substituted *G. leuconota* without assigning reason for so doing. However, during my own visit to the Western Territory in 1889, I thought the first point might be easily settled as to which of the two species actually inhabits Western Australia.

But to my surprise, on dissecting birds in the bush and observing others in captivity, I found that the mature male bird possessed a *white* back, while the female's was *black*, besides other minor differences, all pointing to a species distinct from either of the eastern forms. For the new variety I would suggest the specific name *dorsalis*, on account of the differential markings of the backs, and to be known on the vernacular list as the Long-billed Magpie, on account of its longer and narrower bill. Perhaps I should say here that during a recent visit of Colonel Legge to Melbourne, I took the opportunity of bringing under his notice examples of the two eastern birds, together with the western forms, and after examination, and without any hesitancy, he concurred in my deductions.

With regard to the range of the western bird I take it to be fairly distributed as far as South-western Australia is concerned, excepting the heavily forested Karri country between King George's Sound and Cape Leenwin, where I did not observe a single bird. After getting out of the Karri country I noticed the bird in the neighbourhood of Geographē Bay in the more open Jarrah tracts, and along the coast northward. It is said to be found generally throughout the Jam-wood (a species of *Acacia*) country. I noted it as far south as Cranbrook, on the overland railway, sixty-seven miles from Albany. A few, I am informed, occur on the Upper Murchison and Gascoyne districts, and as far north as the Hammersley Range plateau.

At Geraldton, Champion Bay, I had an opportunity of examining a very fine female bird in a state of domestication. By the way, she rejoiced in the name of "Jacob." She was an intensely amusing bird and full of mischievous glee. I should have mentioned that, although the native notes of the western Magpie resemble those of its eastern congeners, the western type seems to lack that hilarity of song so noticeable in both the eastern birds.

The nest, together with a set of eggs of the western species, has already been described by me in the "Proceedings" of this Society, 1890, but for the sake of comparison I may repeat, the nest was constructed outwardly of sticks and twigs, lined inside with bark, which succeeded a ply about $2\frac{1}{2}$ cm. (1 inch) in thickness of finer bark. Measurements across all about 30 cm. ($11\frac{3}{4}$ inches) inside

dimensions 15 cm. (6 inches) across by about $6\frac{1}{2}$ cm. ($2\frac{1}{2}$ inches) deep.

September, October and November constitute the chief breeding months.

G. hyperleuca, Gould (The Lesser White-backed Magpie).

Fourthly and lastly, the Tasmanian Magpie is an insular form of the White-backed Magpie of the continent. Considering that the Tasmanian forms of the same species of the mainland birds are usually larger, it is worthy of remark that the Tasmanian Magpie is smaller—an additional fact, perhaps tending to prove it is a good species and not merely a smaller race of *G. leuconota*. Likewise, it is a curious fact that, although some of the birds peculiar to Tasmania—including a *Strepera* closely allied to *Gymnorhina*—are met with on the larger intermediate islands in Bass Straits the Magpie is altogether absent.

Tasmania was the first colony that extended protection to Magpies, as birds of usefulness, consequently, through not being molested, one finds them exceedingly tame, even sometimes building their nests in trees by the wayside of thoroughfares and streets. I was greatly entertained one day by a Magpie, perched upon a three-railed fence, piping its merry song to a railway train which whizzed past within a few paces of the bird.

The Tasmanian Magpie usually lays three or four eggs, but I have heard of sets of five as with the mainland species. The breeding season is from August to the end of the year. Mr. Arthur E. Brent, from his own observation, informs me, that these birds are not at all particular what they use as constructing material for a home. One nest he saw was built of the wire which bound sheaves of grain, and which was thrown in a heap after threshing. Mr. Brent also observed another nest which was constructed of reaper and binder twine. This nest was lined with horse manure. But of course these are merely exceptions, the nest usually resembling those of the other Magpies. Underneath and adjoining a nest of this Magpie I, on one occasion, found the smaller nest of the Yellow-tailed Tit (*Geobasilus*). The fact, however, is not new, for collectors on the mainland have not unfrequently met with similar instances.

DESCRIPTIONS OF BIRDS.

Gymnorhina tibicen.

Adult male.—Glossy bluish-black, except portions of the underparts and primaries, which are of a more brownish tinge, and except nape and hind neck, upper and under wing coverts, edge of wing, upper and under tail coverts, tail (except a broad terminal band and outer web of either of the outermost feathers) and vent, white. Bill, bluish-white, graduating through blue horn colour into bluish-black at the tip; irides, light hazel; legs, black.

Adult female.—Differs in possessing a more brownish tinge throughout the black plumage, and by having the nape and hind neck, and lower back grey instead of white.

Young.—Most resemble the female, with the dark portions of the plumage brownish-black.

Gymnorhina leuconota.

Adult male.—Black generally, more glossy on some portions, and brownish tinged on other parts, except nape and hind neck, back, upper and under wing coverts, edge of wing, upper and under tail coverts, tail (except the terminal band and outer web of either of the outermost feathers) and vent, white. Bill bluish-white, graduating through bluish-slate into bluish-black at the tip; irides, light hazel; legs, black.

Adult female.—Differs in having the black portions of the plumage not so intense in colour, and by having back of neck and back grey; some of the feather shafts, particularly on the back, showing a fine dark stripe.

Young (from the nest).—Most resemble the female. In some instances, excepting on the head, the dark portions of the plumage are rusty brown.

“Immature birds, of both sexes, have the whole of the back clouded with grey, and the bill of a less pure ash colour.”—(Gould).

Gymnorhina dorsalis.

Adult male.—Resembles most the male of *G. leuconota*, but is smaller in size, bill narrower, more curved and longer, edge of wings slightly mottled instead of white, and the black terminal

band of the tail narrower and more concentric in form. Bill, bluish-white graduating through bluish horn colour into bluish-black at the tip; irides, hazel; legs, black.

Adult female.—Differs conspicuously in having the back black instead of white; back of neck and lower back being of a mottled appearance where the dark feathers are tipped with white, the mottle at back of neck blending into a white nape; the otherwise black plumage is browner in tone than on the male, especially on the under parts and primaries.

Gymnorhina hyperleuca.

Adult male.—Glossy bluish-black or glossy black, except nape, hind neck, back, upper and under wing coverts, upper and under tail coverts, tail (except the terminal band and outer web of either of the outermost feathers) and vent, white; edge of wing, white mottled with black; bill, bluish horn colour graduating into black at the tip; irides, clear or bright hazel; legs, black.

Adult female.—Differs in having the hind neck and back grey, and the primaries and terminal band of the tail brownish-black.

COMPARATIVE DIMENSIONS IN INCHES.

Species.	Total length.	Culmen.	Wing.	Tail.	Tarsus.
<i>G. tibicen</i> (male) - -	15·75	2	10·1	6	2
(female) - -	15·75	1·7	9·7	6	2
<i>G. leuconota</i> (male) - -	17	2·18	11·5	7·25	2·5
(female) - -	16·25	2·06	10·75	6	2·25
<i>G. dorsalis</i> (male) - -	15·5	2·31	10·25	6·1	2·1
(female) - -	16	2·18	10·5	6·25	2·2
<i>G. hyperleuca</i> (male) - -	13·5	1·75	9·4	5·5	2

Names of Species.	Bastard Wing.	Covert Feathers of the Primaries.	Covert Feathers of the Secondaries.
<i>G. tibicen</i> (male) -	First feather black entirely, 2nd and 3rd white on outer web.	White commences on the 4th feather on outer web. Same on 5th and 6th, extending nearly to the tip. 7th feather and following ones quite white.	First feather pure white, 2nd to 6th white with black at the base of inner web.
<i>G. leucomota</i> (male) -	First feather black with trace of white. 2nd and 3rd white. The latter not extending so much as on above.	White commences on the 5th on outer web only. The same arrangement applies to the series as far as the 9th.	Showing black on the base of all feathers, also on tips of inner web.
<i>G. dorsalis</i> (male) -	First and 2nd feathers black, 3rd showing white at its base only.	Same as in the above species. The inner webs of the 8th and 9th showing white also.	Inner webs black throughout, differing from both the other species. Outer webs white.
<i>G. dorsalis</i> (female) -	First feather same as above, 2nd showing white, also 3rd.	Fifth, 6th and 7th whiter on outer web, 8th, 9th and 10th white, extending over portion of inner web too.	Same as above.
<i>G. hyperleuca</i> (male) -	First and 2nd feathers black. Two-thirds of outer web white on 3rd and 4th.	Outer webs of 5th, 6th, 7th and 8th white, but not reaching to tips of feathers. 9th and 10th (not ascertained, specimens moulting), presumably the same throughout the series.	All white, with the exception of 2nd, 3rd and 4th, where the white does not reach the tip on the inner web, leaving a small black spot.

DESCRIPTIONS OF EGGS.

Black-backed Magpie (*G. tibicen*).—Eggs, although varying in shape, are chiefly of a lengthened form; the texture of the shell is somewhat fine but lustreless. There are many different characteristics of colouring. Three types may be singled out for description: (*a*) Ground colour bluish or French grey, beautifully marbled nearly over the whole surface with streaks, dashes and smudges of pinkish- or brownish-red. In some instances the markings form a confluent patch about the apex. (*b*) Other specimens are more greenish in ground colour, and are clouded or blotched with drab. (*c*) Another set has a greenish ground colour but instead of reddish streaks is moderately marked with large roundish spots and blotches of umber and dull slate, most of the blotches having penumbra-like edges. Faint traces of hair-like lines also appear upon the surface of the shell. A full clutch taken in Riverina measures, in centimetres: (1) 3.65 x 2.65; (2) 3.7 x 2.69; (3) 3.72 x 2.68; (4) 3.65 x 2.76; (5) 3.67 x 2.72. Another set, I took in Queensland, gives: (1) 3.78 x 2.82; (2) 3.9 x 2.8; (3) 3.81 x 2.78.

White-backed Magpie (*G. leuconota*).—Three types of eggs may be again selected as the most common, all somewhat lengthened and elegant in form. (*a*) Ground colour light or pale green, almost hidden with streaky and cloudy markings of pinkish-red. (*b*) In others the markings are drab or brown. (*c*) These examples have a plain grey (sometimes greenish) ground colour, and, like the type "*c*" in *G. tibicen* are moderately, almost sparingly, marked with roundish spots and blotches of umber and dull slate. I possess exceptional examples of a beautiful bluish-green colour devoid of markings save a few indistinct freckles of chestnut. Dimensions, in centimetres, of a clutch of type "*b*". (1) 4.02 x 2.72; (2) 4.0 x 2.65; (3) 3.88 x 2.75. A clutch in type "*c*": (1) 3.97 x 2.86; (2) 3.96 x 2.81; (3) 3.97 x 2.8.

Lesser White-backed Magpie (*G. hyperleuca*).—Eggs lengthened in form, light greenish ground colour mottled and marked all over with umber. Another class of specimens which, however, is not so common, is rounder in form and more of a distinct greenish colour, moderately marked as in type "*c*" of the preceding species, with roundish blotches of umber. Interspersed are also

a few wavy markings. Dimensions, in centimetres: Clutch—long examples: (1) 3.88 x 2.77; (2) 3.7 x 2.69; (3) 3.45 x 2.5. Two, from a clutch of four—round examples: (1) 3.61 x 2.77; (2) 3.57 x 2.87.

Long-billed Magpie (*G. dorsalis*)—The West Australian eggs exhibit less variety of colouring and more resemble the "a" type in both those of *G. tibicen* and *G. leuconota*. The form is long and elegant, ground colour varying from bluish-grey to greenish-grey in tone, beautifully streaked or marbled all over with rich pinkish-brown. The following are the dimensions, in centimetres, of three clutches:—

a—(1) 3.96 x 2.8; (2) 3.86 x 2.76; (3) 4.33 x 2.68.

b—(1) 4.3 x 2.75; (2) 4.12 x 2.7; (3) 4.19 x 2.68.

c—(1) 4.23 x 2.71; (2) 4.02 x 2.7; (3) 3.65 x 2.64.
